

WATER QUALITY M E M O R A N D U M

Utah Coal Regulatory Program

January 21, 2009

TO: Internal File

THRU: James D. Smith, Permit Supervisor *DS 01/26/09*

FROM: April A. Abate, Environmental Scientist II *AAA 1-21-09*

SUBJECT: 2008 Fourth Quarter Water Monitoring, Andalex Resources, Centennial Mine, C/007/0019, Task ID #2695

The Centennial Mine is currently in temporary cessation. No mining or coal processing activities currently take place there, nor is the site in active reclamation.

In June 2007, the Division of Oil, Gas, and Mining (the Division) conditionally-approved an amendment to revise the existing operational water monitoring requirements. JBR Environmental Consultants (JBR) of Sandy, Utah prepared a water monitoring plan on behalf of Andalex Resources, L.L.C. (the Permittee). The purpose of submitting the water-monitoring plan was to correct discrepancies identified by Division personnel within the MRP and revise the existing water monitoring operational requirements at the Centennial mine. Water-monitoring requirements are presently located in Sections 711.300 pages 7-2 through 7-10 and Appendix L of the MRP. Water sampling locations are shown on Figure IV-11.

The water monitoring plan prepared by JBR is intended to supercede the existing sections of the MRP pertaining to water monitoring. Currently, there is an outstanding amendment to finalize and implement the new water monitoring plan prepared by JBR by the end of 2008. To date, the Division has not been notified by the Permittee as to when this amendment will be finalized and when the new water monitoring plan will go into effect.

1. Were data submitted for all of the MRP required sites?

Springs

YES ☒ NO ☐

The only spring sampled during this quarter was Spring sample S18. All others were either inaccessible or not flowing.

Streams

YES ☒ NO ☐

None of the streams reported flow except for the following: Summit Creek (SC-1) and Antone Creek (AC-1). All others stream sites were monitored in accordance with the existing water

monitoring plan.

Wells

YES ☒ NO ☐

Well #1 remains dry.

UPDES

YES ☒ NO ☐

All UPDES locations were monitored monthly in accordance with the permit. No discharge from any of the sample locations was reported for the fourth quarter of 2008.

Pond

YES ☒ NO ☐

The stock watering pond, 31-1 sampling location was reported as not flowing during the fourth quarter of 2008.

2. Were all required parameters reported for each site?

Springs and Pond

YES ☐ NO ☒

Dissolved oxygen was not reported for Spring sample S18-1.

Streams

YES ☒ NO ☐

Wells

YES ☐ NO ☐

Not applicable this quarter.

UPDES

YES ☐ NO ☐

Not applicable this quarter.

3. Were any irregularities found in the data?

Springs and Pond

YES ☐ NO ☒

TSS, calcium, chloride and hardness were all reported outside at least two standard deviations from the average value for spring sample S18-1.

Streams

YES ☒ NO ☐

Water temperature was reported at 0.8 degrees Celcius at Summit Creek, considerably lower than the temperature reported at Antone Creek which was 7.6 degrees C. Similarly, the dissolved oxygen concentration for Summit Creek was higher at 13.1 degrees C as opposed to 9.5 degrees C for Antone Creek.

Wells

YES ☐ NO ☐

Not applicable this quarter.

UPDES

YES ☐ NO ☐

Not applicable this quarter.

- 4. Did the Permittee make a timely submittal of all data, including initially missing data, and satisfactorily explain irregular data?** YES ☒ NO ☐

Permittee indicated that the irregularities in the data for spring sample S18-1 were possibly due to mine stoppage.

- 5. Does the Mine Permittee need to submit more information to fulfill this quarter's monitoring requirements?** YES ☐ NO ☒

- 6. Based on your review, what further actions, if any, do you recommend?**

The Division has noted that there has been a data entry glitch in uploading the acidity parameter values into the database. The Division is in the process of attempting to correct this problem.

- 7. Follow-up from last quarter, if necessary.**

Stream sampling point locations 17-1, 17-2, 8-1, 25-2 and spring sampling location S25-1 were conditionally approved by the Division to be eliminated from the monitoring plan. The Permittee to date has not submitted the necessary paperwork to finalize the amendment and subsequently, the locations are still being sampled under the original water monitoring plan. When will the new water monitoring plan be finalized?